OWE-005 PERFORMANCE INDICATORS IN COLONOSCOPY AFTER CERTIFICATION FOR INDEPENDENT PRACTICE: OUTCOMES AND PREDICTORS OF COMPETENCE

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10.1136/gutjnl-2018-BSGAbstracts.5

Introduction Robust real-world performance data of newly-independent colonoscopists are lacking. In the UK, provisional colonoscopy certification (PCC) often marks the transition from training to newly-independent practice. We aimed to assess changes in key performance indicators (KPIs) such as caecal intubation rate (CIR) in the periods pre- and post-PCC, with particular interest in rates and predictors of trainees exhibiting a drop in performance (DIP), defined as CIR <90% in the first 50 procedures post-PCC.

Methods A prospective UK-wide observational study of e-Portfolio colonoscopy entries (n=257,800) from trainees awarded PCC between July 2011–2016 was undertaken. Moving average analyses were used to study KPI trends relative to PCC. Pre-PCC trainee, trainer and training environment factors were compared between DIP and non-DIP cohorts to identify predictors of DIP.

Results 733 trainees from 180 centres were awarded PCC after a median of 265 procedures and 3.1 years. Throughout the early post-PCC period, average CIR was maintained above the national 90%+standard. Despite this, not all trainees achieved this standard in the post-PCC period, with DIP observed in 18.4%. DIP was not found to be influenced by trainer presence, and diminished after 100 additional procedures. On multivariable analysis, pre-PCC factors predictive of DIP included: lower CIR, higher polyp detection rate, and non-medical endoscopist predominant trainer specialty. Trainees with DIP also incurred higher post-PCC rates of moderate-severe discomfort and lower terminal ileal intubation. Overall, trainee KPIs met JAG standards in the lead-up to PCC, and generally remained stable or improved subsequently during the post-PCC period of newly-independent practice (figure 1).

Conclusions The current PCC requirements are suitable for diagnostic colonoscopy. It is possible to identify predictors of underperforming trainees, which may be of value to training leads to direct additional monitoring and support.

Abstract OWE-005 Figure 1

OWE-006 SHOULD WE BE USING THE SHOCK INDEX TO ASSESS PATIENTS PRESENTING WITH UPPER GI BLEEDING?

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10.1136/gutjnl-2018-BSGAbstracts.6

Introduction Upper GI bleeding (UGIB) is a common cause of hospitalisation. The admission Rockall (ARS), Glasgow-Blatchford (GBS) and AIMS65 scores are validated pre-endoscopy risk assessment tools. The UK NCEPOD report into UGIB used Shock Index (SI=pulse/systolic blood pressure) to assess risk of poor outcome. However existing data on SI are mostly from trauma settings. The limited data in UGIB suggest SI>0.7, or SI>1 may predict need for endoscopic therapy or mortality. Our aim was to assess the accuracy of SI to predict clinical outcomes after UGIB.

Methods We collected demographic, clinical and laboratory data on consecutive patients admitted to six large hospitals across the UK, USA, Denmark, Singapore, and New Zealand over 12 months. We compared the SI, ARS, GBS, AIMS65 and the new international bleeding risk score (IBRS) in their ability to predict need for endoscopic therapy, need for major transfusion (≥4 units PRBCs) and death. We also assessed score thresholds for identifying patients at low or high risk of death, and whether adding the SI as a parameter to the IBRS improved its predictive accuracy.

Results 3012 patients (mean age 65 years; 58% men) were studied. 574 (19%) required endoscopic therapy and 396 (13.3%) needed major transfusion. 30 day mortality was 7%.

This table compares AUROCs of the scoring systems for predicting outcomes.

Abstract OWE-006 Table 1

Scoring System	Outcome (AUROC)		
	Endoscopic Therapy	Major (≥4 units) Transfusion	30 day Mortality
SI	0.606	0.655	0.611
GBS	0.747*	0.836*	0.692†
AIMS65	0.621	0.692	0.785*
ARS	0.613	0.658	0.759*
IBRS	0.675*	0.726*	0.863*

*p<0.001 and †p=0.001 when compared to SI

For predicting need for endoscopic therapy or major transfusion, SI had lower accuracy than GBS and IBRS, but similar to AIMS65 and ARS. In contrast to SI≥1, GBS ≥7 correctly identified the majority of patients needing endoscopic therapy (80% vs 21%; p<0.001).

For predicting 30 day mortality, SI had lower AUROC than all other scores. GBS ≤1 was superior to SI<0.7 at predicting low-risk of death (mortality rate 0.35% vs 5.2%; p<0.001). Patients with S≥I1 had lower mortality than those with IBRS ≥8 (15.3% vs 34.1%; p<0.001) and IBRS correctly identified a greater proportion of those who died as being high risk (49% vs 28%; p<0.001). Adding SI to the IBRS did not improve its predictive accuracy (AUROC 0.864 vs 0.863).

Conclusions Existing pre-endoscopy risk scores are superior to the SI in predicting need for endoscopic therapy, major transfusion or mortality after UGIB. Most patients who reach these important clinical endpoints are classified as low risk by SI.